DEPARTMENT OF TRANSPORTATION
DES-OE MS #43
1727 30TH Street, 2ND Floor
Sacramento, CA 95816

January 14, 2004

01-Hum-299-50.5/52.5
01-446704
ACSTPH-P299(141)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in HUMBOLDT COUNTY ABOUT 9 KM WEST OF WILLOW CREEK FROM 2.9 KM TO 1 KM WEST OF EAST FORK WILLOW CREEK BRIDGE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on January 28, 2004. The original bid opening date was previously postponed indefinitely under Addendum No. 1 dated January 8, 2004.

This addendum is being issued to set a new bid opening date as shown herein and revise the Notice to Contractors and Special Provisions.

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES," the fourth and fifth paragraphs are replaced as follows:

"The work shall be diligently prosecuted to completion before the expiration of **30 WORKING DAYS** beginning on the date that work begins or beginning on the twenty-fifth calendar day after approval of the contract, whichever occurs first.

The Contractor shall pay to the State of California the sum of $2,200.00 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above."

In the Special Provisions, Section 10-3, "SIGNALS, LIGHTING AND ELECTRICAL SYSTEMS," is replaced as attached.

To Proposal and Contract book holders:

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This office is sending this addendum by confirmed facsimile to all book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachment

SECTION 10-2. (BLANK)

SECTION 10-3. SIGNALS, LIGHTING AND ELECTRICAL SYSTEMS

10-3.01 DESCRIPTION

Installation of radar speed sign shall conform to the provisions in Section 86, "Signals, Lighting and Electrical Systems," of the Standard Specifications and these special provisions.

10-3.02 CONDUCTORS AND WIRING

The minimum insulation thickness, at any point, for Type USE, RHH or RHW wire shall be 1.0 mm for conductor sizes No. 14 to No. 10, inclusive, and 1.3 mm for No. 8 to No. 2, inclusive. The minimum insulation thickness, at any point, for Type THW and TW wires shall be 0.69 mm for conductor sizes No. 14 to No. 10, inclusive, 1.02 mm for No. 8, and 1.37 mm for No. 6 to No. 2, inclusive.

10-3.03 RADAR SPEED SIGN

The radar speed sign shall consist of all work shown on the plans required by the radar speed sign manufacturer, specified in the standard specifications, and as specified in these special provisions including, but not limited to, furnishing and installing a Radar Speed Sign, sign supports and mounting hardware, conduit, conductors to control the sign.

Materials and products which the Contractor proposes to install for the radar speed sign shall be furnished and submitted to the Engineer in conformance with the provisions in Section 6-1.07, "Certificate of Compliance," of the Standard Specifications.

The Contractor is limited to the brands and models of the radar speed signs. The Contractor shall notify the radar speed signs manufacturer that the unit is going to be installed under contract within the California Department of Transportation and shall identify the contract number.

Manufacturers	Models
Information Display Company	VSC-1520
All Traffic Solutions	SPEEDsentry 15
US Traffic Corporation	SUNRAY 515P

GENERAL SPECIFICATIONS

Display Housing Dimension: (500-572) mm height X (700-966) mm width X (115 - 240) mm depth
Numerical Height: (380 - 410) mm
Sign Dimension: (900-1350) mm height X (750-1250) mm width
Sign Weight: (15.5 - 27.5) kg
Housing: Heavy (2 - 3.2) mm Gauge Welded Aluminum
“YOUR SPEED” Sign: (2 – 3.2) mm Gauge Aluminum
Hardware: Stainless & Brass
Display Type: AlInGaP LED (Light Emitting Diode)
Dimmer: Dim numeric display at night option
Operating Temperature: -40°C to 52°C
Power: 110/120 V(ac)
RADAR Type: Internal, Low power, 24.150 GHz (K-band), approach only
FCC Approval: Part 15 Certified, no operating license required.

DISPLAY

Speed display shall consist of 2 seven segment solid-state numeric characters and numeric characters. Each display segment shall consist of 16 discrete LEDs of 17 degree viewing angle, which are individually aimed to provide even light distribution within the viewing area. Maximum LED current shall be adjustable to different values to suit various application requirements. Light intensity be shall adjusted automatically to provide optimum viewability under all ambient light conditions. The LED's shall be ITE (Institute of Traffic Engineers) amber and shall have a wavelength from 590 to 600 nanometers and which utilizes AlInGaP technology. The LEDs shall be rated for 100,000 hours or more for continuous illumination. The light intensity of LED shall be 2250 cd/m² or higher per California Test 606. The sign system shall be controlled in all functions by an on-board dedicated computer that shall be of solid state design and be removable.

The numeric display shall have extremely high contrast to provide the highest visibility. Numeric speed display portion of sign shall be designed to avoid distracting the attention of motorists away from the road by the prevention of viewing from acute angles outside the motorist's normal forward field of view. The display digits shall be field-replaceable with the removal of four external fasteners or fewer.

MECHANICAL

The sign background surface shall be Reflective Sheeting of white color. Lettering: "YOUR SPEED" shall be printed in two lines using 152 mm high black letters. Outer surfaces of enclosure shall be coated with UV resistant coating.

Display window shall be made of shatter-resistant polycarbonate. The display shall have a mechanism for highly vandal resistant, such as to absorb the shock energy by deflecting the display widow and internal display together without damage. Internal electronic display and speed detection components must be highly resistant to damage that may be inflicted by thrown or launched projectiles.

Housing shall be non-sealed ventilated type weather proof (NEMA 3R or better) with tamper proof fasteners.

Internal components shall be easily accessible, and designed to allow efficient in-field repair without removal of the sign from the mounting post. Field repair shall be performed without lane closure and shall be achieved in timely manner and shall not take more than 30 minutes.

The manufacturers of the radar speed sign shall have the model and serial number, month and year of manufacturer, and operating voltage range marked on the sign.

ELECTRICAL

The sign system shall operate using a supplied 120 V(ac) commercial electrical service (100-240 V(ac) 47-63 Hz) via a circuit breaker.

TESTING

The radar speed sign shall be factory tested. In addition to manufacture recommended field-testing, the following Functional Testing will be done (before any final payment) by the qualified representative of the Sign vendor and the Engineer:

1. Approach: The sign is set up to detect eastbound traffic. The radar shall not detect westbound traffic.
2. Accuracy: +/- 1.6 km/h.
3. Visibility: In normal weather condition, the display shall be extremely high contrast and visible. The dimmer option could be experimentally turn off if the normal display is not too bright to view at night. In severe weather condition (wet/freeze), the overall performance of the sign shall be evaluated.

The Contractor shall have a maximum of thirty calendar days from the date of rejection to correct deviations and deficiencies.

TRAINING

The Contractor shall give minimum of 48 hours notice to the Engineer to bring the State Maintenance, Operations and TMC (Traffic Management Center) personnel to the site during the testing period to observe the tests and to be trained on operation of the radar speed sign. A field training session of not less than 2 hours shall be provided to maximum of ten State employees on simple troubleshooting and repair of the Sign.

SUBMITTALS

Submittals shall conform to Section 86-1.04 "Equipment List and Drawings" of the Standard Specifications. The submittals shall include:

1. Underwriters Laboratory (UL) certification for the Radar Speed Sign
2. Maintenance Manuals
3. Operation Manuals
4. Shop Drawings showing the mechanical sign support and electrical connections

WARRANTY

The manufacturer shall provide a written warranty against defects in materials and workmanship for the radar speed sign for a period of two years after installation. Replacement radar speed signs or components within the warranty period shall be provided within ten working days after receipt of failed radar speed sign at no cost to the State. All warranty documentation shall be given to the Engineer before the installation.

10-3.04 PAYMENT

The contract lump sum price paid for radar speed sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in radar speed sign, complete in place, including testing and training, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.